Are Homicides Rising or Falling in U.S. Cities?

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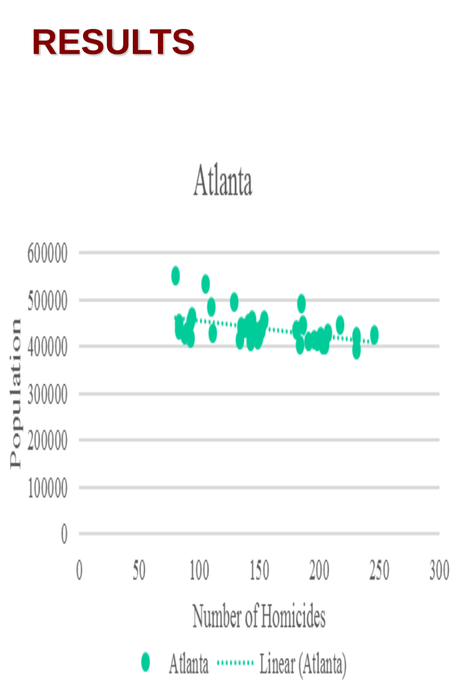
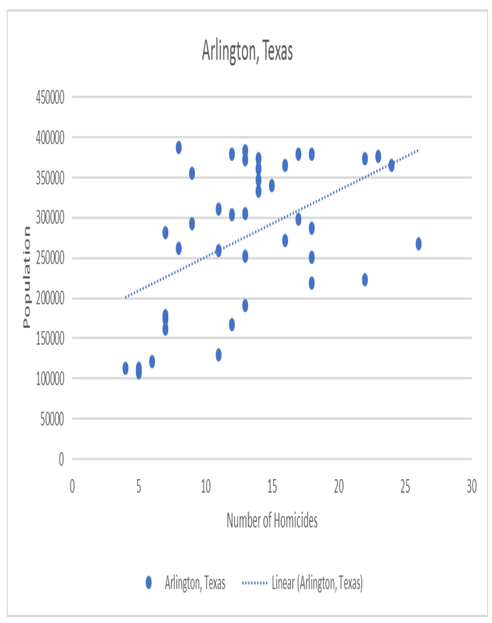
ABSTRACT

64.44% of the time number of homicides is negatively correlated with population in U.S. cities. 33.67% of the time number of homicides is positively correlated with population in U.S. cities. Those U.S. cities without a strong correlation of number of homicides versus population and show a positive population rate has close to the same probability in U.S. cities with a negative correlation in number of homicides versus population. There is close probability of U.S. cities with a positive correlation in number of homicides and population to that with those U.S. cities without a strong correlation of number of homicide versus population rate and show a negative population rate. The national homicide rate is falling.

RESULTS





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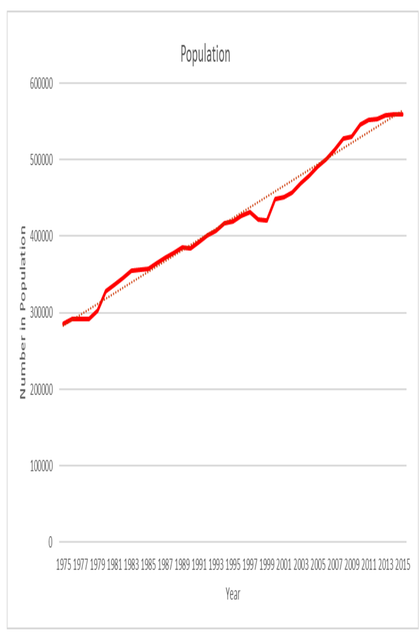
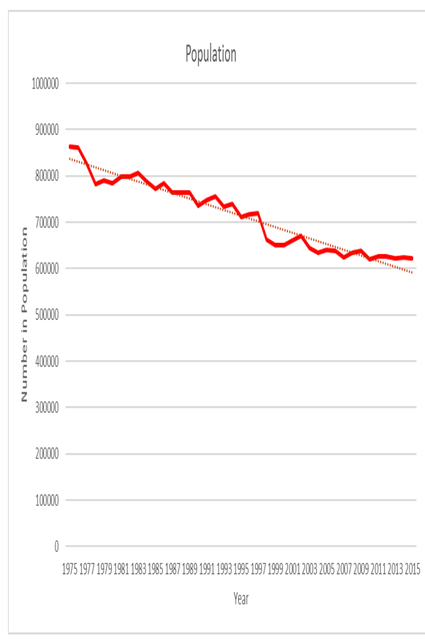


Baltimore



CONCLUSION

There is a close to a two-third chance number of homicides plays a factor in population rate. The national homicide rate is falling. For cities without a strong correlation in number of homicides versus population, the probability of a city as this to have a positive population rate matches the probability of a city with a negative correlation of number of homicide and population. The cities without a strong correlation in number of homicides and population and show a negative population rate has probability which closely matches that of those with a positive correlation of number of homicides versus population.

METHOD

In performing an analysis of the number of homicides per year by city correlating to the population per year by city, I made a dashboard. I did this by first making another worksheet in Microsoft Excel, clicking the developer tab, and then clicking on insert. In insert, I clicked on XYZ which is followed with a line that loops back to the letters in form controls. I made this XYZ, with a square box, big enough to place radio buttons in it. In the same place I clicked on the XYZ with a square box, I clicked on the radio button. I placed the radio button in the XYZ square box. I right clicked on the radio button I placed in the box and choose format controls. Within the window, I choose to link the radio button to the sheet where the database, crimes in cities. In this sheet, I entered the years in the database next to the column I linked the radio button. Next to the column and row I entered the years, I entered a choose function. I used the cell where I linked the radio button to choose the data. The data are the identification of the cities. Since the radio button will cause a number to enter in the linked cell, I entered the cities' identification in the order I will place and name the radio button separated by commas in the choose function. The order in which one places the radio button in the square box gives the number in the cell the radio button is linked. The first radio button will display one in the linked cell. The naming of each radio button is based on the order in the choose function.

Next to the row and column with the choose function, I entered the sum ifs function to find the number of homicides by year and identification of a city. Next to this column and row, I entered another sum ifs function to obtain the population by year and identification of a city. I made a graph for the column with the number of homicides and another for the population. I placed, also, statistics for number of homicides and population, which shows the mean, median, mode, standard deviation, sample variance, skewness, range, maximum, sum, count, and interquartile range. I made, also a scatter plot with trend line comparing number of homicides and population. I placed next to the graph the calculated correlation. These were calculated through Microsoft Excel functions.

REFERENCE

The Marshall Project (2016 September 28). City Crime. *GitHub.* Retrieved February 22, 2017, from https://github.com/themarshallproject/city-crime/blob/master/data/ucr_crime_1975_2015.csv.